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(54) **METHOD OF ALLOCATING VOCODER
RESOURCES IN A MOBILE
COMMUNICATION SYSTEM**

(75) Inventor: **Chang Keun Seo, Incheon-kwangyoksi
(KR)**

(73) Assignee: **LG Information & Communications,
Ltd., Seoul (KR)**

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(52) U.S. Cl. **370/335; 370/342; 455/452;
704/221**

(58) Field of Search **370/338, 340,
370/341, 320, 493, 494, 495, 217, 221,
225, 335, 331, 468, 328, 465, 352, 353;
455/560, 12.1, 442; 704/200, 201, 229**

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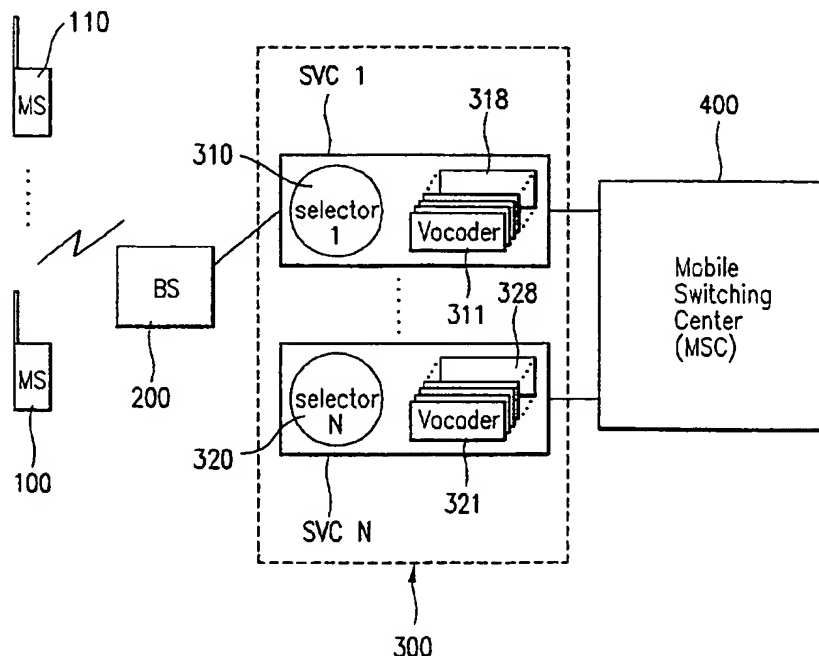
Assistant Examiner—Phuc Tran

(74) *Attorney, Agent, or Firm*—Fleshner & Kim, LLP

(57) **ABSTRACT**

A method of allocating vocoders during a simultaneous transfer of voice and data frames in a mobile communication system includes allocating a separate vocoder for processing the voice frame and the data frame. When a mobile communication receives a multiple requests for a simultaneous transfer of voice and data frames, the data frames are multiplexed and allocated to a single vocoder. Thus, the availability of the vocoder resources can be significantly increased.

28 Claims, 5 Drawing Sheets



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TITLE: Method of allocating vocoder resources in a mobile communication system

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Detailed Description Text - DETX (3):

Referring to FIG. 1, a preferred embodiment of a CDMA mobile communication system according to the present invention includes a plurality of mobile stations 100 to 110, each having a wireless data transmitting/receiving capabilities; a base station 200 having a plurality of traffic channels to control and relaying the communication of the plurality of mobile stations 100 to 110; a base station controller (BSC) 300 having a main control processor (CCP) and a plurality of SVCs 1-n, each SVC including a selector 310, 320 and eight vocoders 311 to 318 and 321 to 328; and a MSC 400 having a T-switch, receiving calls from a mobile station through the vocoders 311-318 and connecting the calls to other networks, and controlling the base station 200.

Detailed Description Text - DETX (7):

Before connecting and transmitting the call, the CCP of the BSC 300 verifies the states of its own system and the MSC 400. If the BSC 300 and MSC 400 are not in overload states, the CCP connects the call by allocating a frame offset and the vocoder resources, according to the service option of the call origination. The service option may include sending voice frames, data frames, or both voice and data frames.